CLAIMS

What is claimed is:

1. A method for sensing physical parameter data and retrieving data locations relating to the physical parameter data, the method comprising the steps of:

(a) initializing a clock in a first device and storing a first synchronization time in a second device;

(b) upon activation by a user, storing in the first device physical parameter data including the interval of time between the first synchronization time and the activation by the user;

(c) transmitting the interval of time and the physical parameter data stored in step (b) to the second device;

(d) receiving from the second device supplemental information related to the physical parameter data.

2. The method of claim 1 wherein said second device comprises a server remote from said first device and operably coupled to a computer network.

3. The method of claim 2 wherein said transmitting step (c) further comprises

(c1) operably connecting the first device to the computer network to transmit data from the first device to the server.

4. The method of claim 1, 2 or 3 wherein said physical parameter data comprises the frequency to which a broadcast receiver is tuned.

5. A method for sensing physical parameter and retrieving data locations relating to the physical parameter data, the method comprising the steps of:

(a) initializing a clock in a first device and storing a first synchronization time in a second device;

(b) upon activation by a user, storing in the first device physical parameter data including the interval of time between the first synchronization time and the activation by the user;

(c) upon each subsequent activation by a user, storing in the first device corresponding physical parameter data including the interval of time between activations;

(d) transmitting, upon activation of the user, the intervals of time and the corresponding physical parameter data stored in steps (b) and (c) to the second device;

(e) receiving from the second device supplemental information related to the intervals of time and other physical parameter data transmitted in step (d).

6. The method of claim 5 further comprising the step of (d1) storing the interval of time between the last activation of the user in step (c) and the activation in step (d); and (d2) transmitting the interval of time stored in step (d1) to the second device.

7. The method of claim 5 or 6 wherein said physical parameter data comprises the frequency to which a broadcast receiver is tuned.

8. The method of claim 5 wherein said supplemental information received in step (e) comprises a data location relating to said physical parameter data.

9. A method for sensing physical parameter and retrieving data locations relating to the physical parameter data, the method comprising the steps of:

(a) upon activation by a user, storing in a first device physical parameter data including the interval of time between a first synchronization of the first device with a second device and the activation by the user;

(b) upon each subsequent activation by a user, storing in the first device corresponding physical parameter data including the interval of time between activations;

(c) transmitting, upon activation of the user, the intervals of time and the corresponding physical parameter data stored in steps (a) and (b) to the second device;

(d) receiving from the second device supplemental information related to the intervals of time and other physical parameter data transmitted in step (c).

10. The method of claim 9 further comprising the step of (d1) storing the interval of time between the last activation of the user in step (b) and the activation in step (c); and (d2) transmitting the interval of time stored in step (d1) to the second device.

11. A method for providing supplemental information based on remote sensing of physical parameter data, said method comprising the steps of:

(a) recording a first synchronization time;

(b) receiving physical parameter data including a first physical parameter and a time interval;

(c) deriving an activation time based on the first synchronization time and the time interval;

(d) scanning a database to retrieve supplemental information based on the activation time and the first physical parameter.

12. The method of claim 11 wherein said deriving step (c) comprise the step of

(c1) adding the time interval to the first synchronization time.

13. The method of claim 11 wherein said supplemental information comprises a data location related to said first physical parameter and said activation time.

14. The method of claims 11, 12 or 13 wherein said physical parameter data comprises the frequency to which a broadcast receiver is tuned.

15. A method for providing supplemental information based on remote sensing of physical parameter data, said method comprising the steps of:

(a) recording a first server synchronization time;

(b) receiving at least one physical parameter data set and a remote device synchronization time interval, said physical parameter data set including a first physical parameter and a corresponding time interval;

(c) recording a second server synchronization time;

(d) deriving activation times corresponding to each physical parameter data set received in step (b) based on the time intervals in the physical parameter data sets, the first and second synchronization times, and the synchronization time interval received in step (b); and,

(e) scanning a database to retrieve supplemental information related to the activation times derived in step (d) and the first physical parameters received in step (b).

16. The method of claim 15 wherein said deriving step (d) comprises the steps of:

(d1) calculating a server synchronization interval based on the first and second server synchronization times;

(d2) calculating a remote device synchronization interval based on the time intervals in the physical parameter data sets and the remote device synchronization time interval;

(d3) correcting the time intervals corresponding to each physical parameter data set based on the difference between the server synchronization interval and the remote device synchronization interval;

(d4) calculating the activation times corresponding to each physical parameter data set by adding the corresponding corrected time interval to the first server synchronization time.

17. The method of claim 16 wherein said correcting step (d3) is based on interpolation.

18. The method of claims 11, 12, 13, 14, 15, 16, or 17 wherein the physical parameter data comprises the frequency to which a broadcast receiver is tuned, and wherein the time interval corresponds to the interval of time between activations of a first device for storing the frequency.

19. A method for transmitting physical parameter data to retrieve data locations related to the physical parameter data, the method comprising the steps of:

(a) detecting physical parameters;

(b) storing encrypted representations of the physical parameters, wherein the encrypted representations of the physical parameters are encrypted with an encryption key; and

(c) transmitting the encrypted representations of the physical parameters to a server to retrieve a data location related to the physical parameters.

20. The method of claim 19 further comprising the step of

(d) receiving a data location related to the physical parameters.

21. The method of claim 19 or 20 wherein said transmitting step further comprises

(c1) transmitting a user identification to the server.

22. A method for retrieving a data location based on the observation of real world events, said method comprising the steps of:

(a) providing a sensing unit to a user, said sensing unit encrypting representations of physical parameter data with an encryption key;

(b) receiving encrypted representations of physical parameter data from said sensing unit;

(c) decrypting the encrypted representations of said physical parameter data; and,

(d) retrieving a data location related to said physical parameter data.

23. The method of claim 22 wherein said sensing unit has a unique encryption key and said user has a unique user identification; and wherein said method further comprises the step of

(a1) storing said unique encryption key in association with said user identification.

24. The method of claim 23 further comprising the steps of:

(b1) receiving a user identification from a user; and,

(b2) retrieving the encryption key associating with said user identification; wherein said encryption key retrieved in step (b2) is used in said decrypting step (c).

25. The method of claim 22 wherein said sensing unit has a unique encryption key and a unique sensing unit identification; and wherein said method further comprises the step of (a1) storing said unique encryption key in association with said sensing unit identification.

26. The method of claim 25 further comprising the steps of:

(b1) receiving a sensing unit identification from a user; and,

(b2) retrieving the encryption key associating with said sensing unit identification;

wherein said encryption key retrieved in step (b2) is used in said decrypting step (c).

27. An apparatus for identifying an explicit data location on a computer network corresponding to physical parameters, wherein said physical parameters do not directly identify an explicit data location, said apparatus comprising

a database having a list of data locations, said database storing associated first and second physical parameters for corresponding ones of said data locations;

a processor coupled to said database, said processor also being coupled to receive a data location request containing said first and second physical parameters, said processor accessing said database according to said first and second physical parameters in said data location request to retrieve the data location corresponding to said first and second physical parameters;

a user account database storing user accounts including user identifications and data locations;

wherein said processor stores said data locations in said user account database; and,

a monitoring agent responsive to said data locations stored in said user account database and operable to retrieve additional data locations based on said data locations stored in said user account.

28. The method of claim 27 wherein said first physical parameter is broadcast frequency and said second physical parameter is time.

29. The apparatus of claim 28 wherein said database further stores associated third physical parameters for corresponding ones of said data locations; wherein said third physical parameter is geographic location, and wherein said processor

accesses said database according to said first and second physical parameters in said data location request to retrieve the data location corresponding to said first, second and third physical parameters.

30. An apparatus for detecting the frequency to which a broadcast receiver is tuned, comprising:

a controller,

an active frequency detection module operably connected to said controller,

a passive frequency detection module operably connected to said controller,

and an activation button operably connected to said controller, wherein depression of said activation button activates said controller;

wherein, upon such activation of said controller, said controller operates a predetermined one of said active frequency detection module or said passive frequency detection module to detect the frequency to which said broadcast receiver is tuned; and, wherein, if no frequency is detected, said controller operates the other of said frequency detection modules to detect the frequency to which said broadcast receiver is tuned.

31. The apparatus according to claim 30 further comprising a timing device operably connected to said controller and a memory operably connected to said controller, wherein upon activation of said controller, said controller stores in said memory a time value from said timing device and the frequency to which said broadcast receiver is tuned.

32. The apparatus of claim 30 or 31 wherein said controller stores at least one preset carrier frequency, and wherein said controller operates a predetermined one of said active frequency detection module or said passive frequency detection

module to detect whether said preset carrier frequency is the frequency to which said broadcast receiver is tuned; and wherein if no match is detected, said controller operates the other of said frequency detection modules to detect whether said preset carrier frequency is the frequency to which said broadcast receiver is tuned.

33. The apparatus of claim 32 wherein, if no matching preset carrier frequency is detected, said controller scans the entire broadcast band to detect the frequency to which said broadcast receiver is tuned.

34. The apparatus of claim 30 further comprising a timing device operably connected to said controller; wherein, upon activation by a user, said controller stores the time value of said timing device.

35. The apparatus of claim 34 wherein, upon said activation, said controller resets said timing device.

36. An apparatus for detecting the frequency to which a broadcast receiver is tuned, comprising:

a controller,

an active frequency detection module operably connected to said controller, wherein said active frequency detection module comprises a transmitter for transmitting a signal over a carrier frequency to the receiver; and, means for detecting whether the receiver output corresponds to said signal;

a passive frequency detection module operably connected to said controller,

wherein said active frequency detection module comprises means for receiving the first demodulated signal from the receiver; means for receiving said first modulated signal in the modulated domain and producing a second

demodulated signal in the demodulated domain; and means, coupled to each of the receiving means, for detecting a correlation between the first demodulated signal and the second demodulated signal;

and an activation button operably connected to said controller, wherein depression of said activation button activates said controller;

wherein, upon such activation of said controller, said controller operates a predetermined one of said active frequency detection module or said passive frequency detection module to detect the frequency to which said broadcast receiver is tuned; and, wherein, if no frequency is detected, said controller operates the other of said frequency detection modules to detect the frequency to which said broadcast receiver is tuned.

37. The apparatus of claim 36 wherein said means for receiving a modulated signal and producing a second demodulated signal, demodulates said first signal with respect to a range of frequencies.

38. The apparatus of claim 36 or 37 further comprising means for selectively tuning said means for receiving said first modulated signal.

39. The apparatus of claim 36 wherein said means for detecting a correlation between the first demodulated signal and the second demodulated signal comprises means for isolating a plurality of tones in said first demodulated signal and said second demodulated signal.

40. The apparatus of claim 36 further comprising a timing device operably connected to said controller; wherein, upon activation by a user, said controller stores the time value of said timing device.

41. The apparatus of claim 40 wherein, upon said activation, said controller resets said timing device.

42. The apparatus of claim 36 further comprising a circular buffer memory operably connected to said controller, said memory storing physical parameter data.

43. A method for resolving geographic location based on the frequency spectrum signature of a broadcast band in said geographic location, said method comprising the steps of:

(a) scanning a broadcast band in a geographic location;

(b) for at least one carrier frequency in said broadcast band, recording a signal value to derive a broadcast band signature; and,

(c) transmitting said broadcast band signature to a server, said server storing broadcast band signatures corresponding to a plurality of geographic locations.

44. The method of claim 43 further comprising the step of

(a1) detecting the frequency to which a broadcast receiver is tuned;

(a2) recording a time value related to said detecting step (a1); and,

wherein said transmitting step further comprises

(c1) transmitting the frequency to which a broadcast receiver is tuned and time value to said server.

45. The method of claim 44 wherein said time value is a real-time value.

46. The method of claim 44 wherein said time value is a time interval.

47. A method for resolving geographic location based on the frequency spectrum signature of a broadcast band in said geographic location, said method comprising the steps of:

(a) scanning a broadcast band in a geographic location;

(b) for at least one carrier frequency in said broadcast band, recording a signal value to derive a broadcast band signature; and,

(c) storing in a database said broadcast band signature in association with said geographic location.

48. The method of claim 47 further comprising the step of:

(d) repeating steps (a) - (c) for a plurality of geographic locations.

49. The method of claim 48 further comprising the steps of:

(e) receiving a broadcast band signature;

(f) scanning said database to retrieve the geographic location corresponding to the broadcast band signature matching the broadcast band signature received in step (e).

50. The method of claim 47, 48 or 49 wherein said broadcast band signature is a 1-bit level signature.

51. The method of claim 50 wherein said broadcast signature is a multiple-bit level signature.